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REMARKS

Claims 1-3, 5-8 and 10-18 are pending in the application. Claim 10 has been amended herein. Favorable reconsideration of the application, as amended, is respectfully requested.

I. REQUEST FOR TELEPHONE INTERVIEW

Applicant respectfully requests that the Examiner contact the undersigned to arrange for a mutually convenient time to conduct a telephone interview prior to issuing any further non-favorable Office Action.

The present application has been pending for over two years and already has been subject to a Request for Continued Examination (RCE). Applicant believes such an interview could be helpful for clarifying any unresolved issues and expediting favorable prosecution.

II. REJECTION OF CLAIM 10 UNDER 35 USC §112, 2nd ¶

Claim 10 is rejected under 35 USC §112, second paragraph, as being indefinite. The Examiner notes that claim 10 now depends from canceled claim 9. Applicant has amended claim 10 herein so as to depend from claim 1 which now includes the features of original claim 9. Withdrawal of the rejection is respectfully requested.

III. REJECTION OF CLAIMS 1-3, 5-8 AND 10-18 UNDER 35 USC §103(a)

Claims 1-3, 5-8 and 10-18 remain rejected under 35 USC §103(a) based on *Rudd '676* in view of *Murphy*. Applicant respectfully traverses this rejection for at least the following reasons.

In maintaining the rejection of claims 1-3, 5-8 and 10-18 since the previous final Office Action, the Examiner simply states "[w]ith regard to applicant's added limitations to the pressure sensor, please see the embodiment of figure 3 of *Murphy* as discussed in col. 8." Applicant respectfully submits that the Examiner does not appear to have fully appreciated applicant's argument in the response filed with the RCE.

Applicant never argued in the previous response that *Murphy* does not teach a

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pressure sensor. In fact, applicant specifically pointed out to the Examiner that *Murphy* teaches the use of a pressure sensor and referred to the exact same figure as the Examiner. Specifically, applicant pointed out "*Murphy* admittedly teaches a brake controller which utilizes both measured brake torque and measured brake pressure. (See, e.g., Fig. 3)". (Emphasis added, Applicant's Response filed 1/31/05, p. 6).

The point, however, as argued in applicant's previous response, is that *Murphy* does not teach or suggest calculating and utilizing the inverse brake gain as recited in claims 1 and 17. Rather, *Murphy* teaches using the measured brake torque and measured brake pressure (*admittedly from a pressure sensor*) to transition between open loop torque control and closed loop pressure control. (See, e.g., Col. 8, Ins. 35-49). Thus, neither *Rudd* '676 nor *Murphy* teaches or suggests a controller which calculates inverse brake gain utilizing the measured brake torque and measured brake pressure as recited in claims 1 and 17.

Applicant clearly noted in the previous response that claims 1 and 17 now recite how the brake controller receives as inputs *both* the torque applied to the wheel and the brake pressure applied to the wheel. Using both the measured brake torque and measured brake pressure, an accurate inverse brake gain may be calculated and is utilized to adjust the brake pressure output command as recited in claims 1 and 17. As is discussed in the present application, using the measured brake pressure overcomes the disadvantages associated with conventional approaches in which torque feedback alone was utilized.

Rudd '676 describes an antiskid control system which utilizes torque feedback. As is described in *Rudd* '676, a torque sensor provides a brake torque feedback signal which is provided to a Kalman filter based controller. As is described in *Rudd* '676 in relation to Equation 6 noted by the Examiner, *Rudd* '676 relies on the Kalman filter to estimate brake gain based on the measured torque. While there is apparent beauty in the manner in which *Rudd* '676 utilizes a state estimator, applicant's present invention provides beauty in its simplicity.

Therefore, applicant again notes that *Rudd* '676 does not teach or suggest a controller which calculates inverse brake gain utilizing the measured brake torque and

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measured brake pressure as recited in claims 1 and 17. Nor does *Rudd '676* teach or suggest the desirability of such an approach.

Moreover, *Murphy* does not make up for the deficiencies in *Rudd '676* insofar as teaching or suggesting a controller which calculates inverse brake gain utilizing the measured brake torque and measured brake pressure as recited in claims 1 and 17. As again emphasized above, *Murphy* does include a pressure sensor and does teach a brake controller which utilizes both measured brake torque and measured brake pressure. However, *Murphy* does not calculate and utilize inverse brake gain utilizing the measured brake torque and measured brake pressure as recited in claims 1 and 17. Rather, *Murphy* teaches using the measured brake torque and measured brake pressure to transition between open loop torque control and closed loop pressure control. (See, e.g., Col. 8, Ins. 35-49).

In summary, *Rudd '676* does not teach or suggest a brake controller which calculates inverse brake gain utilizing, *inter alia*, measured brake pressure. Similarly, *Murphy* does not teach or suggest a brake controller which calculates inverse brake gain utilizing, *inter alia*, measured brake pressure. The fact that *Murphy* includes an embodiment which has a pressure sensor is irrelevant to the claimed invention. Whether taken alone or in combination, *Rudd '676* and *Murphy* do not teach or suggest a brake controller which calculates inverse brake gain utilizing, *inter alia*, measured brake pressure.

Furthermore, in rejecting claims 1 and 17 the Examiner does indicate any motivation whatsoever which would prompt a person having ordinary skill in the art to take the pressure sensor of *Murphy* and modify the system in *Rudd '676* so as to produce a brake controller which calculates inverse brake gain utilizing, *inter alia*, measured brake pressure as recited in claims 1 and 17.

In view of the clear absence of any such teachings in *Rudd '676* and *Murphy*, and in view of the clear absence of any showing of motivation, the Examiner fails to set forth even a *prima facie* basis for the rejection of claims 1 and 17. Withdrawal of the rejection of claims 1, 17, and the claims dependent therefrom is respectfully requested.

Regarding the various dependent claims, these claims too may be distinguished

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over the teachings of the cited references for at least the same reasons. Regarding claim 3, the computed inverse brake gain is a function of the brake torque applied to the wheel resulting from an amount of pressure applied to the wheel by the brake actuator via the brake assembly. Neither *Rudd* '676 nor *Murphy* teach or suggest such a computed inverse brake gain. Further, claims 12-16 detail the manner in which the desired response characteristics can involve particular limits as recited therein. Neither *Rudd* '676 nor *Murphy* teach or suggest such characteristics.

Thus, applicant respectfully submits that claims 1-3, 5-8 and 10-18 are patentably distinguishable over the cited art. Applicant respectfully requests withdrawal of the rejection.

III. CONCLUSION

Accordingly, all claims 1-3, 5-8 and 10-18 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

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Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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DATE: August 3, 2005

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